

\square represents the number of magazines that Lina reads each week.
Which of these represents the total number of magazines that Lina reads in 6 weeks?

- (A) $6 + \square$
- (B) $6 \times \square$
- (C) $\square + 6$
- (D) $(\square + \square) \times 6$

Item Number: M012048

Rob had 50 apples. He sold some and then had 20 left.
Which of these is a number sentence that shows this?

- (A) $\square - 20 = 50$
- (B) $20 - \square = 50$
- (C) $\square - 50 = 20$
- (D) $50 - \square = 20$

Item Number: M031220

$$37 \times \blacksquare = 703.$$

What is the value of $37 \times \blacksquare + 6$?

Answer: _____

Item Number: M031249

Here is a number pattern.

100, 1, 99, 2, 98, , ,

What three numbers should go in the boxes?

- (A) 3, 97, 4
- (B) 4, 97, 5
- (C) 97, 3, 96
- (D) 97, 4, 96

Item Number: M011027

4	11	6
9		5
8	3	10

The rule for the table is that numbers in each row and column must add up to the same number. What number goes in the center of the table?

- (A) 1
- (B) 2
- (C) 7
- (D) 12

Item Number: M031023

The daily start times for showing a movie are listed below:

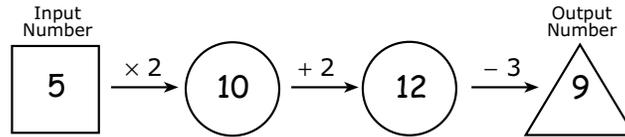
Show	Start Time
1st	2:00 p.m.
2nd	3:30 p.m.
3rd	5:00 p.m.
4th	?

If this pattern continues, what is the start time for the 4th show?

- (A) 5:30 p.m.
- (B) 6:00 p.m.
- (C) 6:30 p.m.
- (D) 7:00 p.m.

Item Number: M031051

A number machine takes a number and operates on it.
When the Input Number is 5, the Output Number is 9, as shown below.

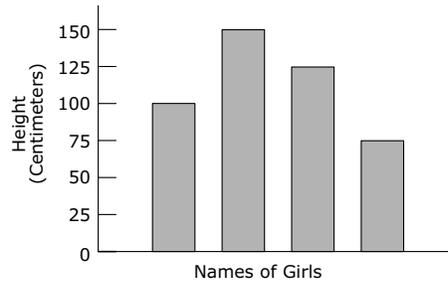


When the Input Number is 7, which of these is the Output Number?

- (A) 11
- (B) 13
- (C) 14
- (D) 25

Item Number: M031190

The graph shows the heights of four girls.

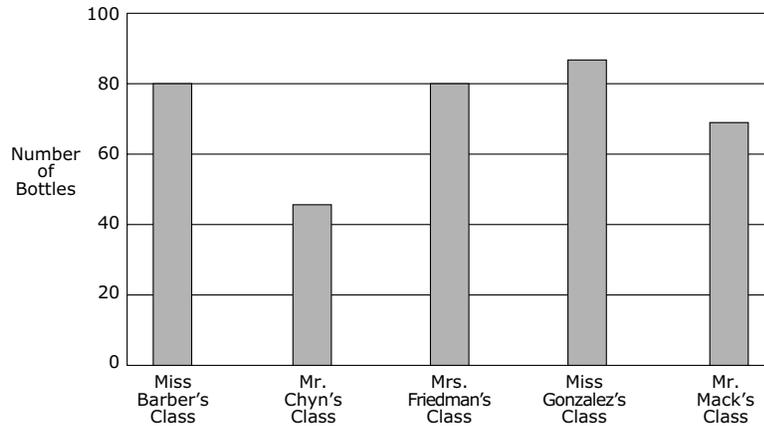


The names are missing from the graph. Debbie is the tallest. Amy is the shortest. Dawn is taller than Sarah. How tall is Sarah?

- (A) 75 cm
- (B) 100 cm
- (C) 125 cm
- (D) 150 cm

Item Number: M012126

Central School had a bottle collection. Children in each class brought empty bottles to school. The principal made a bar graph of the number of bottles from five classes.

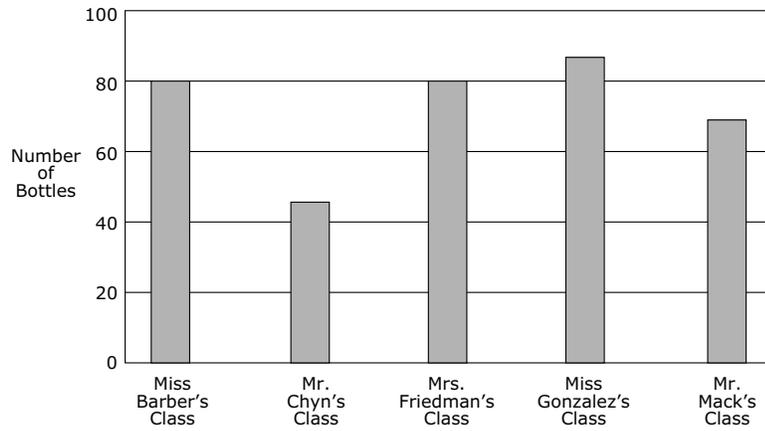


Which class collected 45 bottles?

- (A) Miss Barber's class
- (B) Mr. Chyn's class
- (C) Mrs. Friedman's class
- (D) Mr. Mack's class

Item Number: M011009

Central School had a bottle collection. Children in each class brought empty bottles to school. The principal made a bar graph of the number of bottles from five classes.



Which two classes collected exactly 80 bottles?

- (A) Miss Barber's and Mrs. Friedman's classes
- (B) Miss Barber's and Mr. Mack's classes
- (C) Mrs. Friedman's and Miss Gonzalez's classes
- (D) Miss Gonzalez's and Mr. Mack's classes

Item Number: M011012

This chart shows temperature readings made at different times on four days.

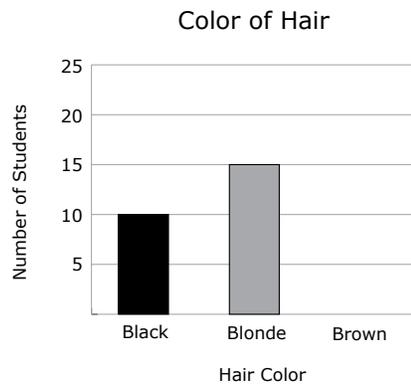
TEMPERATURES					
	6 a.m.	9 a.m.	Noon	3 p.m.	8 p.m.
Monday	15°	17°	20°	21°	19°
Tuesday	15°	15°	15°	10°	9°
Wednesday	8°	10°	14°	13°	15°
Thursday	8°	11°	14°	17°	20°

When was the highest temperature recorded?

- (A) Noon on Monday
- (B) 3 p.m. on Monday
- (C) Noon on Tuesday
- (D) 3 p.m. on Wednesday

Item Number: M012078

In a class of 30 students, 10 have black hair, 15 have blonde hair, and the rest have brown hair. Complete the graph below to show the number of students with brown hair.



Item Number: M031264

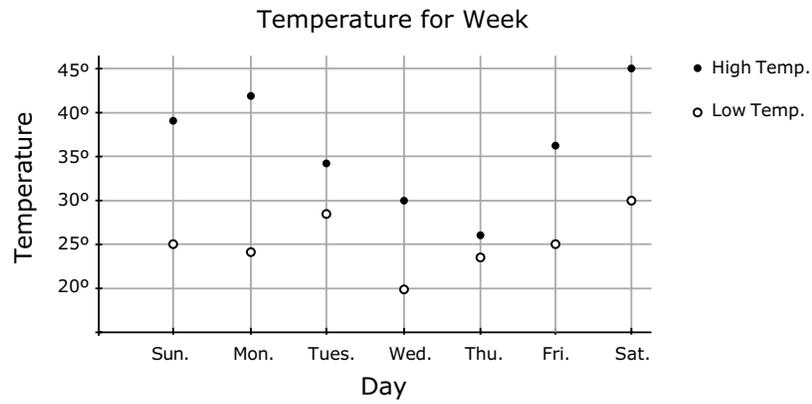
A store owner decided to check how many pens, pencils, erasers, and rulers were sold on the day school opened. He made the tally chart below.

Pens	Pencils	Erasers	Rulers

How many more pencils than rulers were sold?

Answer: _____

Item Number: M031265



The graph above shows the daily high and low temperatures for a week.

On which day is the difference between the high and low temperatures the greatest?

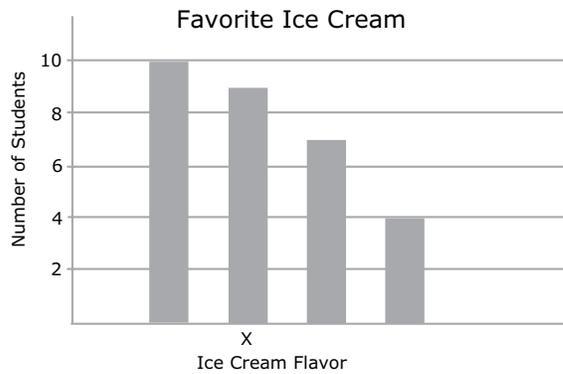
- (A) Monday
- (B) Thursday
- (C) Friday
- (D) Saturday

Item Number: M031333

Favorite Ice Cream	Number of Students
Butterscotch	
Chocolate	### ##
Strawberry	###
Vanilla	###

A teacher asked 30 students in her class the flavor of their favorite ice cream. The table above shows how the teacher recorded the students' responses.

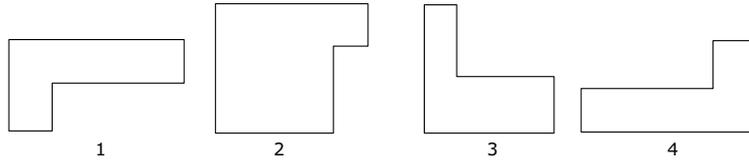
In the bar graph below, which ice cream flavor corresponds to the bar that is labeled X?



- (A) butterscotch
- (B) chocolate
- (C) strawberry
- (D) vanilla

Item Number: M031315

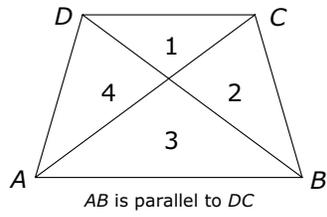
Figures that are the same size and shape are called congruent figures.



Which two figures are congruent?

- (A) 1 and 2
- (B) 1 and 3
- (C) 1 and 4
- (D) 3 and 4

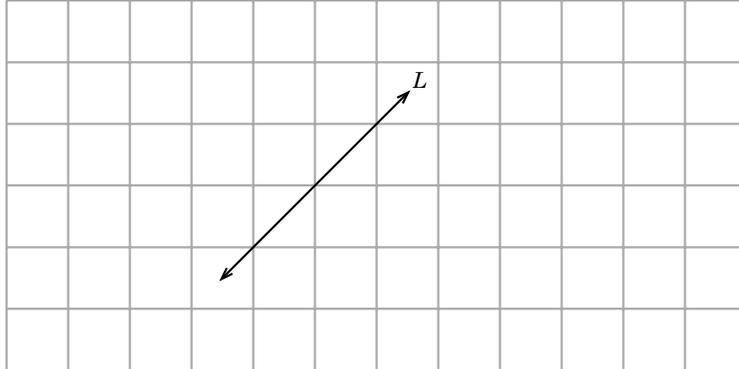
Item Number: M011014



Two of the four triangles in the figure above are the same shape but different sizes. Shade in those two triangles.

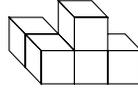
Item Number: M031267

On the grid, draw a line parallel to line L .



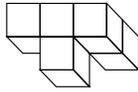
Item Number: M031327

This figure will be turned to a different position.

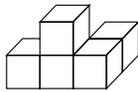


Which of these could be the figure after it is turned?

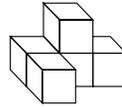
(A)



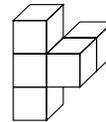
(B)



(C)

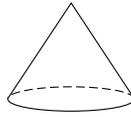


(D)



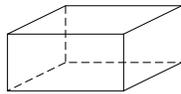
Item Number: M012069

Here is a cone. Part of its surface is flat and part of its surface is curved.

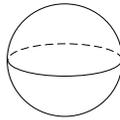


Which of these solids also has both a flat surface and a curved surface?

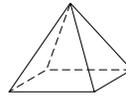
(A)



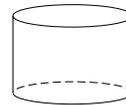
(B)



(C)



(D)



Item Number: M011006

All of the pupils in a class cut out paper shapes. The teacher picked one out and said, "This shape is a triangle." Which of these statements **MUST** be correct?

- Ⓐ The shape has three sides.
- Ⓑ The shape has a right angle.
- Ⓒ The shape has equal sides.
- Ⓓ The shape has equal angles.

Item Number: M011022

In the picture there are a number of geometric shapes, like circles, squares, rectangles, and triangles. For example, the sun looks like a circle.

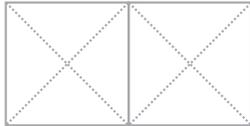
Draw lines to three other different objects in the picture and write what shapes they look like.



Item Number: M031269

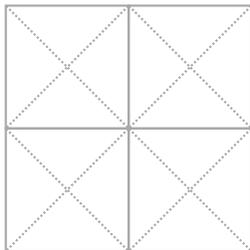
- A. Use 2 of the triangle tiles to make one large black triangle. Then show what you did with your tiles by shading in your triangle below.

**Shade in Your
Triangle Here**



- B. Use all 4 triangle tiles to make a black square. Then show what you did with your tiles by shading in your square below.

**Shade in Your
Square Here**



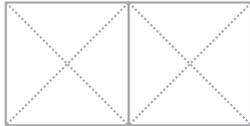
- C. What fraction of the figure is shaded in part B above?

Answer: _____

Item Number: M031347A

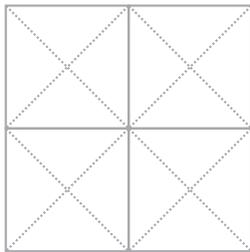
- A. Use 2 of the triangle tiles to make one large black triangle. Then show what you did with your tiles by shading in your triangle below.

**Shade in Your
Triangle Here**



- B. Use all 4 triangle tiles to make a black square. Then show what you did with your tiles by shading in your square below.

**Shade in Your
Square Here**



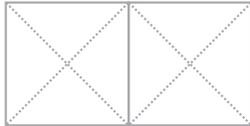
- C. What fraction of the figure is shaded in part B above?

Answer: _____

Item Number: M031347B

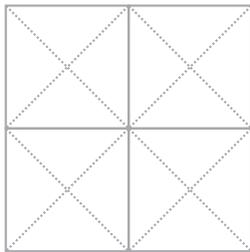
- A. Use 2 of the triangle tiles to make one large black triangle. Then show what you did with your tiles by shading in your triangle below.

**Shade in Your
Triangle Here**



- B. Use all 4 triangle tiles to make a black square. Then show what you did with your tiles by shading in your square below.

**Shade in Your
Square Here**



- C. What fraction of the figure is shaded in part B above?

Answer: _____

Item Number: M031347C

A. Draw 1 straight line on this rectangle to divide it into 2 triangles.



B. Draw 1 straight line on this rectangle to divide it into 2 rectangles.



C. Draw 2 straight lines on this rectangle to divide it into 1 rectangle and 2 triangles.



Item Number: M031272A

A. Draw 1 straight line on this rectangle to divide it into 2 triangles.



B. Draw 1 straight line on this rectangle to divide it into 2 rectangles.



C. Draw 2 straight lines on this rectangle to divide it into 1 rectangle and 2 triangles.



Item Number: M031272B

A. Draw 1 straight line on this rectangle to divide it into 2 triangles.



B. Draw 1 straight line on this rectangle to divide it into 2 rectangles.



C. Draw 2 straight lines on this rectangle to divide it into 1 rectangle and 2 triangles.



Item Number: M031272C

Which of these could be the weight (mass) of an adult?

- (A) 1 kg
- (B) 6 kg
- (C) 60 kg
- (D) 600 kg

Item Number: M011023

What units would be best to use to measure the weight (mass) of an egg?

- Ⓐ centimeters
- Ⓑ milliliters
- Ⓒ grams
- Ⓓ kilograms

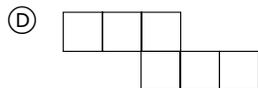
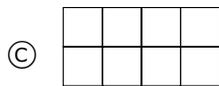
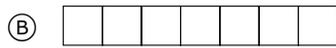
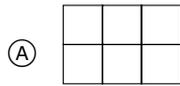
Item Number: M012023

Which of these could equal 150 milliliters?

- Ⓐ The amount of water in a cup
- Ⓑ The length of a kitten
- Ⓒ The weight of an egg
- Ⓓ The area of a coin

Item Number: M031338

Which of these figures has the largest area?



Item Number: M011005

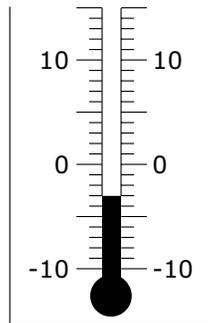
Simon wants to watch a film that is between $1\frac{1}{2}$ and 2 hours long.

Which of the following films should he choose?

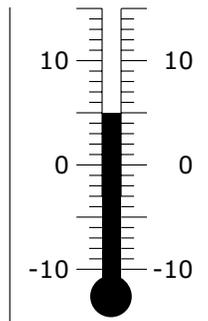
- Ⓐ a 59-minute film
- Ⓑ a 102-minute film
- Ⓒ a 121-minute film
- Ⓓ a 150-minute film

Item Number: M031008

When Tracy left for school, the temperature was minus 3 degrees.

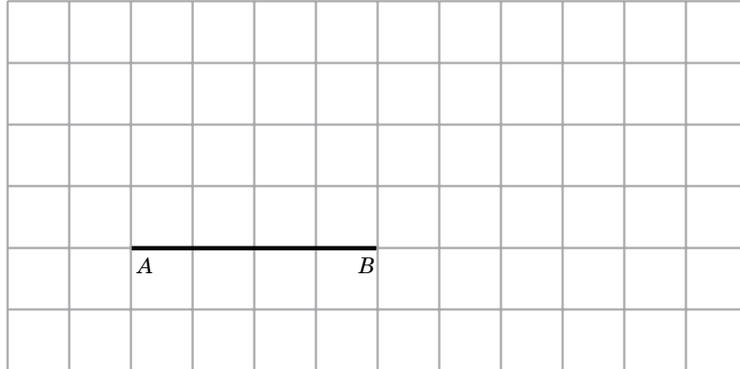


At recess, the temperature was 5 degrees.



How many degrees did the temperature rise?

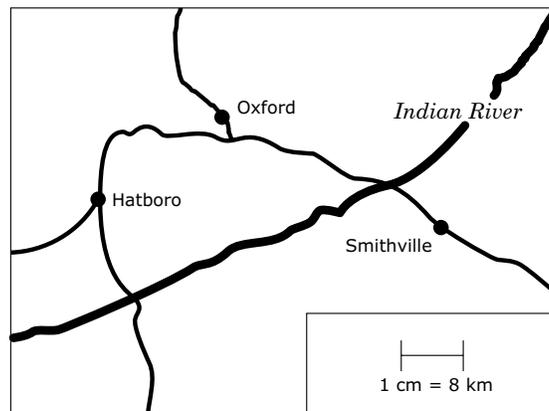
Item Number: M011013



Draw a triangle in the grid so that the line AB is the base of the triangle and the two new sides are the same length as each other.

Item Number: M031322

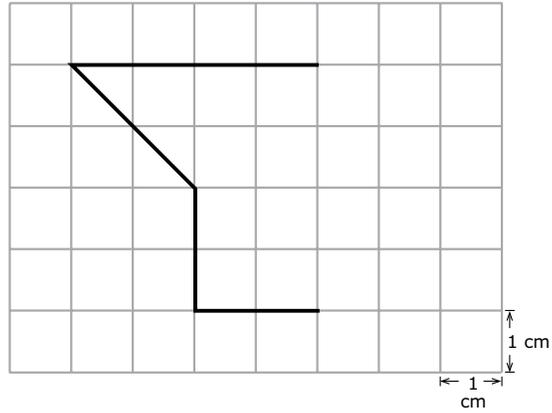
One centimeter on the map represents 8 kilometers on the land.



About how far apart are Oxford and Smithville on the land?

- (A) 4 km
- (B) 16 km
- (C) 35 km
- (D) 50 km

Item Number: M012065



The squares in the grid above have areas of 1 square centimeter. Draw lines to complete the figure so that it has an area of 13 square centimeters.

Item Number: M031298

Here is a calendar for December.

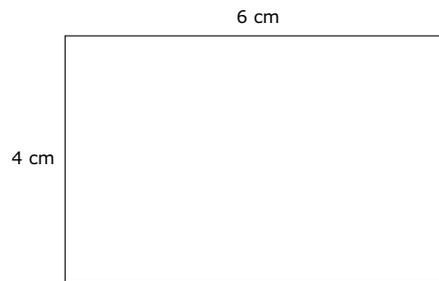
DECEMBER						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Mary's birthday is on Thursday, December 2. She is going on a trip exactly 3 weeks later. On what date will she go on the trip?

- (A) December 16th
- (B) December 21st
- (C) December 23rd
- (D) December 30th

Item Number: M011017

Here is a rectangle with length 6 centimeters and width 4 centimeters. The distance right around its shape is called its perimeter.



Which of these gives the perimeter of the rectangle in centimeters?

- (A) $6 + 4$
- (B) 6×4
- (C) $6 \times 4 \times 2$
- (D) $6 + 4 + 6 + 4$

Item Number: M011025

The distance from one town to another is 180 km. If Betty has to drive the distance in 3 hours, what must her average speed be in kilometers per hour?

- Ⓐ 180×3
- Ⓑ $180 + 3$
- Ⓒ $180 \div 3$
- Ⓓ $180 - 3$

Item Number: M031097

George practiced soccer six days a week.

For 3 of the days he practiced for 45 minutes each day.

For 3 of the days he practiced for 20 minutes each day.

In hours and minutes, what is the total amount of time George practiced on these six days?

- Ⓐ 2 hours 20 minutes
- Ⓑ 2 hours 55 minutes
- Ⓒ 3 hours 5 minutes
- Ⓓ 3 hours 15 minutes

Item Number: M031178

Jasmine made a stack of cubes of the same size. The stack had 5 layers and each layer had 10 cubes. What is the volume of the stack?

- Ⓐ 5 cubes
- Ⓑ 15 cubes
- Ⓒ 30 cubes
- Ⓓ 50 cubes

Item Number: M011010

What is the sum of 2.5 and 3.8?

- Ⓐ 5.3
- Ⓑ 6.3
- Ⓒ 6.4
- Ⓓ 9.5

Item Number: M011008

Subtract: 4.03
 -1.15

- Ⓐ 5.18
- Ⓑ 4.45
- Ⓒ 3.12
- Ⓓ 2.98
- Ⓔ 2.88

Item Number: M011015

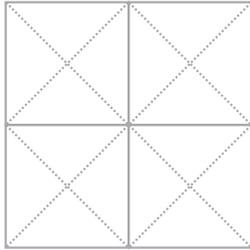
Which of these means $\frac{7}{10}$?

- (A) 70
- (B) 7
- (C) 0.7
- (D) 0.07

Item Number: M011020

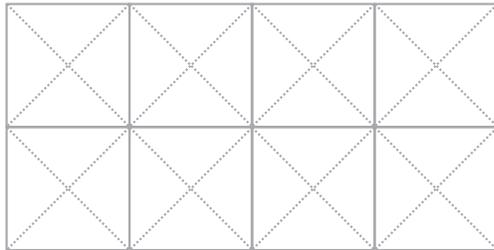
- A. WITHOUT using any triangle tiles, place 4 tiles so that $\frac{1}{2}$ of a square shape is black. Then shade in the square below to show what you did with your tiles.

Shade in Here



- B. Place 8 tiles so that $\frac{5}{8}$ of the rectangle shape is black. Then shade in the rectangle below to show what you did with your tiles.

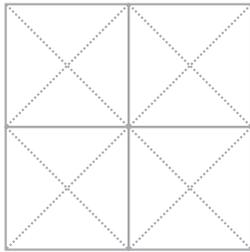
Shade in Here



Item Number: M031348A

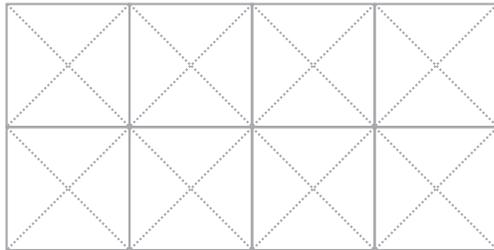
- A. WITHOUT using any triangle tiles, place 4 tiles so that $\frac{1}{2}$ of a square shape is black. Then shade in the square below to show what you did with your tiles.

Shade in Here



- B. Place 8 tiles so that $\frac{5}{8}$ of the rectangle shape is black. Then shade in the rectangle below to show what you did with your tiles.

Shade in Here



Item Number: M031348B

Janis, Maija, and their mother were eating a cake. Janis ate $\frac{1}{2}$ of the cake.
Maija ate $\frac{1}{4}$ of the cake. Their mother ate $\frac{1}{4}$ of the cake.
How much of the cake is left?

- Ⓐ $\frac{3}{4}$
- Ⓑ $\frac{1}{2}$
- Ⓒ $\frac{1}{4}$
- Ⓓ None

Item Number: M012119

There are 600 balls in a box, and $\frac{1}{3}$ of the balls are red.

How many red balls are in the box?

Answer: _____ red balls

Item Number: M031065

A cake was cut into 8 pieces of equal size. John ate 3 pieces of the cake.
What fraction of the cake did John eat?

(A) $\frac{1}{8}$

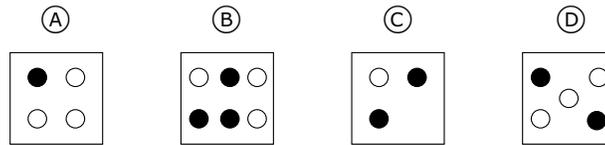
(B) $\frac{3}{8}$

(C) $\frac{3}{5}$

(D) $\frac{8}{3}$

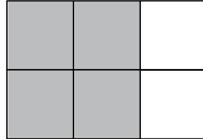
Item Number: M031216

In which figure are one-half of the dots black?



Item Number: M011001

In this diagram, 2 out of every 3 squares are shaded.



Which diagram has 3 out of every 4 squares shaded?

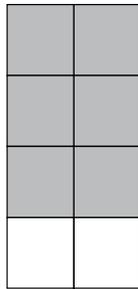
(A)



(B)



(C)

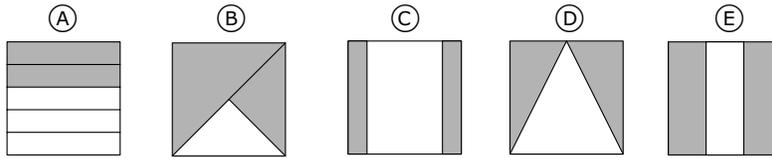


(D)



Item Number: M011016

Which shows $\frac{2}{3}$ of the square shaded?



Item Number: M012044

For every soft drink bottle that Fred collected, Maria collected 3.
Fred collected a total of 9 soft drink bottles. How many did Maria collect?

- (A) 3
- (B) 12
- (C) 13
- (D) 27

Item Number: M031108

Which number would be rounded to 600 when rounded to the nearest hundred?

- (A) 62
- (B) 160
- (C) 546
- (D) 586
- (E) 660

Item Number: M011019

What number equals 3 ones + 5 tens + 4 hundreds + 60 thousands?

- (A) 6,453
- (B) 60,453
- (C) 64,530
- (D) 354,060
- (E) 604,530

Item Number: M011021

Which of these is a name for 9,740?

- Ⓐ Nine thousand seventy-four
- Ⓑ Nine thousand seven hundred forty
- Ⓒ Nine thousand seventy-four hundred
- Ⓓ Nine hundred seventy-four thousand

Item Number: M011024

Which number is equal to eight tens plus nine tens?

- Ⓐ 17
- Ⓑ 170
- Ⓒ 1,700
- Ⓓ 17,000

Item Number: M011028

$$15 \times 9 =$$

Answer: _____

Item Number: M031305

$$204 \div 4 =$$

Answer: _____

Item Number: M031306

Lia is practicing addition and subtraction problems. What number should Lia add to 142 to get 369?

Answer: _____

Item Number: M031130

Juanita wanted to use her calculator to add 1,379 and 243. She entered 1,279+ 243 by mistake. Which of these could she do to correct the mistake?

- Ⓐ Add 100
- Ⓑ Add 1
- Ⓒ Subtract 1
- Ⓓ Subtract 100

Item Number: M031341

In Toshi's class there are twice as many girls as boys. There are 8 boys in the class. What is the total number of boys and girls in the class?

- Ⓐ 12
- Ⓑ 16
- Ⓒ 20
- Ⓓ 24

Item Number: M011002

There are 9 boxes of pencils. Each box has 125 pencils. What is the total number of pencils?

- Ⓐ 1,025
- Ⓑ 1,100
- Ⓒ 1,125
- Ⓓ 1,220
- Ⓔ 1,225

Item Number: M011003

It takes Chris 4 minutes to wash a window. He wants to know how many minutes it will take him to wash 8 windows at this rate. He should

- Ⓐ multiply 4×8
- Ⓑ divide 8 by 4
- Ⓒ subtract 4 from 8
- Ⓓ add 8 and 4

Item Number: M011011

Mark's garden has 84 rows of cabbages. There are 57 cabbages in each row. Which of these gives the BEST way to estimate how many cabbages there are altogether?

- (A) $100 \times 50 = 5,000$
- (B) $90 \times 60 = 5,400$
- (C) $80 \times 60 = 4,800$
- (D) $80 \times 50 = 4,000$

Item Number: M012117

Each student needs 8 notebooks for school. How many notebooks are needed for 115 students?

Answer: _____

Item Number: M031011

A piece of rope 204 cm long is cut into 4 equal pieces. Which of these gives the length of each piece in centimeters?

- (A) $204 + 4$
- (B) 204×4
- (C) $204 - 4$
- (D) $204 \div 4$

Item Number: M031310

Using the number tiles, Joan and Herbert played a new game.
They placed the numbers to make the largest answer.

- A. Use the tiles $\boxed{1}$, $\boxed{5}$, and $\boxed{9}$. Write the numbers on the tiles in the boxes below to make the largest answer when you add.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 + \boxed{} \\
 \hline
 \end{array}$$

- B. Use the tiles $\boxed{2}$, $\boxed{3}$, and $\boxed{7}$. Write the numbers on the tiles in the boxes below to make the largest answer when you subtract.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 - \boxed{} \\
 \hline
 \end{array}$$

- C. Use the tiles $\boxed{1}$, $\boxed{4}$, and $\boxed{5}$. Write the numbers on the tiles in the boxes below to make the largest answer when you multiply.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 \times \boxed{} \\
 \hline
 \end{array}$$

Item Number: M031345A

Using the number tiles, Joan and Herbert played a new game.
They placed the numbers to make the largest answer.

- A. Use the tiles $\boxed{1}$, $\boxed{5}$, and $\boxed{9}$. Write the numbers on the tiles in the boxes below to make the largest answer when you add.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 + \boxed{} \\
 \hline
 \end{array}$$

- B. Use the tiles $\boxed{2}$, $\boxed{3}$, and $\boxed{7}$. Write the numbers on the tiles in the boxes below to make the largest answer when you subtract.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 - \boxed{} \\
 \hline
 \end{array}$$

- C. Use the tiles $\boxed{1}$, $\boxed{4}$, and $\boxed{5}$. Write the numbers on the tiles in the boxes below to make the largest answer when you multiply.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 \times \boxed{} \\
 \hline
 \end{array}$$

Item Number: M031345B

Using the number tiles, Joan and Herbert played a new game.
They placed the numbers to make the largest answer.

- A. Use the tiles $\boxed{1}$, $\boxed{5}$, and $\boxed{9}$. Write the numbers on the tiles in the boxes below to make the largest answer when you add.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 + \boxed{} \\
 \hline
 \end{array}$$

- B. Use the tiles $\boxed{2}$, $\boxed{3}$, and $\boxed{7}$. Write the numbers on the tiles in the boxes below to make the largest answer when you subtract.

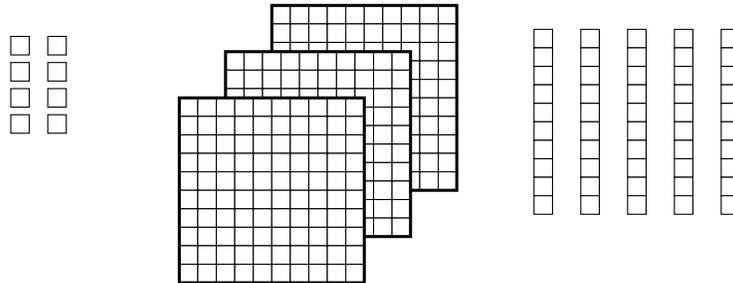
$$\begin{array}{r}
 \boxed{} \boxed{} \\
 - \boxed{} \\
 \hline
 \end{array}$$

- C. Use the tiles $\boxed{1}$, $\boxed{4}$, and $\boxed{5}$. Write the numbers on the tiles in the boxes below to make the largest answer when you multiply.

$$\begin{array}{r}
 \boxed{} \boxed{} \\
 \times \boxed{} \\
 \hline
 \end{array}$$

Item Number: M031345C

Each small square (\square) is equal to 1. There are 10 small squares in each strip. There are 100 small squares in each large square.



What number is shown?

- (A) 16
- (B) 358
- (C) 538
- (D) 835

Item Number: M011004

Which of these has the same value as 342?

- (A) $3,000 + 400 + 2$
- (B) $300 + 40 + 2$
- (C) $30 + 4 + 2$
- (D) $3 + 4 + 2$

Item Number: M011007

Which digit is in the hundreds place in 2,345?

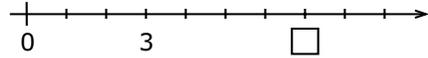
- (A) 2
- (B) 3
- (C) 4
- (D) 5

Item Number: M011018

Which number sentence is true?

- (A) $968 < 698$
- (B) $968 < 689$
- (C) $968 > 689$
- (D) $968 = 689$

Item Number: M011026



On the number line above, what number goes in the box?

Number in = _____

Item Number: M031162

Get to 20 Number Game

Two children, Joan and Herbert, are learning to play a game “Get to 20.” Here are the rules for the game.

GET TO 20
RULES

Pick Tiles: Each player draws three number tiles.

Add Tiles: Each player places the three tiles to make an addition problem with the sum total closest to 20.

For example, here are four ways a player who draws $\boxed{1}$, $\boxed{4}$, and $\boxed{5}$ could place the tiles:

$$\begin{array}{r} \boxed{5} \boxed{1} \\ + \boxed{4} \\ \hline 55 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{4} \boxed{5} \\ + \boxed{1} \\ \hline 46 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{1} \boxed{5} \\ + \boxed{4} \\ \hline 19 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{1} \\ + \boxed{5} \\ + \boxed{4} \\ \hline 10 \end{array}$$

This player should choose to show the addition problem $\begin{array}{r} 15 \\ +4 \\ \hline 19 \end{array}$ because 19 is the total closest to 20.

Joan and Herbert played the game “Get to 20.”

Joan picked $\boxed{2}$, $\boxed{7}$, and $\boxed{9}$. Herbert picked $\boxed{1}$, $\boxed{3}$, and $\boxed{6}$.

- A. What is the addition problem that Joan could make with her number tiles that gives a total closest to 20? Be sure to include the total.
- B. What is the addition problem that Herbert could make with his number tiles that gives a total closest to 20? Be sure to include the total.
- C. Herbert said, “If I pick $\boxed{1}$, $\boxed{4}$, and $\boxed{6}$, I can make 20 two different ways.”

Show two ways Herbert could make 20 with $\boxed{1}$, $\boxed{4}$, and $\boxed{6}$.

First way:

Second way:

Item Number: M031344A

Get to 20 Number Game

Two children, Joan and Herbert, are learning to play a game “Get to 20.” Here are the rules for the game.

GET TO 20 RULES

Pick Tiles: Each player draws three number tiles.

Add Tiles: Each player places the three tiles to make an addition problem with the sum total closest to 20.

For example, here are four ways a player who draws $\boxed{1}$, $\boxed{4}$, and $\boxed{5}$ could place the tiles:

$$\begin{array}{r} \boxed{5} \boxed{1} \\ + \boxed{4} \\ \hline 55 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{4} \boxed{5} \\ + \boxed{1} \\ \hline 46 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{1} \boxed{5} \\ + \boxed{4} \\ \hline 19 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{1} \\ + \boxed{5} \\ + \boxed{4} \\ \hline 10 \end{array}$$

This player should choose to show the addition problem $\begin{array}{r} 15 \\ +4 \\ \hline 19 \end{array}$ because 19 is the total closest to 20.

Joan and Herbert played the game “Get to 20.”

Joan picked $\boxed{2}$, $\boxed{7}$, and $\boxed{9}$. Herbert picked $\boxed{1}$, $\boxed{3}$, and $\boxed{6}$.

- A. What is the addition problem that Joan could make with her number tiles that gives a total closest to 20? Be sure to include the total.
- B. What is the addition problem that Herbert could make with his number tiles that gives a total closest to 20? Be sure to include the total.
- C. Herbert said, “If I pick $\boxed{1}$, $\boxed{4}$, and $\boxed{6}$, I can make 20 two different ways.”

Show two ways Herbert could make 20 with $\boxed{1}$, $\boxed{4}$, and $\boxed{6}$.

First way:

Second way:

Get to 20 Number Game

Two children, Joan and Herbert, are learning to play a game “Get to 20.” Here are the rules for the game.

GET TO 20 RULES

Pick Tiles: Each player draws three number tiles.

Add Tiles: Each player places the three tiles to make an addition problem with the sum total closest to 20.

For example, here are four ways a player who draws $\boxed{1}$, $\boxed{4}$, and $\boxed{5}$ could place the tiles:

$$\begin{array}{r} \boxed{5} \boxed{1} \\ + \boxed{4} \\ \hline 55 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{4} \boxed{5} \\ + \boxed{1} \\ \hline 46 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{1} \boxed{5} \\ + \boxed{4} \\ \hline 19 \end{array} \quad \text{or} \quad \begin{array}{r} \boxed{1} \\ + \boxed{5} \\ + \boxed{4} \\ \hline 10 \end{array}$$

This player should choose to show the addition problem $\begin{array}{r} 15 \\ +4 \\ \hline 19 \end{array}$ because 19 is the total closest to 20.

Joan and Herbert played the game “Get to 20.”

Joan picked $\boxed{2}$, $\boxed{7}$, and $\boxed{9}$. Herbert picked $\boxed{1}$, $\boxed{3}$, and $\boxed{6}$.

- A. What is the addition problem that Joan could make with her number tiles that gives a total closest to 20? Be sure to include the total.
- B. What is the addition problem that Herbert could make with his number tiles that gives a total closest to 20? Be sure to include the total.
- C. Herbert said, “If I pick $\boxed{1}$, $\boxed{4}$, and $\boxed{6}$, I can make 20 two different ways.”

Show two ways Herbert could make 20 with $\boxed{1}$, $\boxed{4}$, and $\boxed{6}$.

First way:

Second way:

Item Index 1995



Content Domain

Page

Content Domain

Page

Whole Numbers

I3	Which number is it	2
I4	What is 3 times 23	3
I9	Subtraction of 4 digit numbers	4
J4	What is the increase in product	5
J9	Number in box	6
K2	Addition of four digit numbers	7
L7	Which pair different by 100	8
M3	Which operation equivalent	9
M6	What to do to correct mistake	10
M8	Choose largest number	11
S2	Complete number sentence	12
T2	Make smallest whole number	13
U5	Addition/multiplication task	14
V2	Number larger than 56,821	15
V3	What is 5 less than 203	16
V4A	Game with cards: who won? Explain	17
V4B	Game with cards: winning numbers	18

Fractions and Proportionality

I2	0.4 is the same as	19
I5	Sauce from 15 tomatoes	20
I8	Which 2 figures represent same fraction	21
J7	Fraction of figure shaded	22
K9	How many marbles in two bags	23
M5	Decimal representing shaded part of figure	24
S3	Longest box on shelf	25
S4	How many pupils in class	26
T4A	Girl/boy ratio: is Juanita right	27
T4B	Girl/boy ratio: is Amanda right	28
U2	Fraction larger than $\frac{2}{7}$	29
U3A	Bicycle ride: how long, Maria	30
U3B	Bicycle ride: how long, Louisa	31
U3C	Bicycle ride: who arrived first	32
V1	Fractions of pie	33

Measurement, Estimation, and Number Sense

J6	Choose largest mass	34
J8	Which is best estimate of hours	35
K5	Estimate pencil length	36
K7	Length of rectangle	37
L6	Best estimate of clothespin mass	38
L8	Who had the longest pace	39
M7	Substance measured in milliliters	40
S5	How many paper clip lengths	41
T3	When did Mr. Brown start walk	42
U1	Triangles in figure	43
V5	Millimeters in a meter	44

Data Representation, Analysis, and Probability

J3	What % of time in play and homework	45
K4	Who won and by how many points	46
L1	Pictograph of trees	47
L2	Chance of picking red marble	48
M1	Chance of hitting shaded region	49
M2	How many raffle tickets	50
S1	Bar graphs of boys and girls	51
T1A	Bar graph: cartons sold Monday	52
T1B	Bar graph: cartons sold for week	53

Geometry

I1	Map of city blocks	54
I6	Which figure made with straight sides	55
J1	Shapes in hexagon	56
J2	Which does not show symmetry	57
K1	Which number in square but not in triangle	58
K8	Rectangle divided into four parts	59
L3	Objects on game board grid	60
L5	Edges of cube	61
M4	Coordinates of dot on grid	62
T5	Cut-out shape	63

Patterns, Relations, and Functions

I7	Number sentence for pages	64
J5	Operation to get B from A	65
K3	Multiply by five	66
K6	How many tiles in next figure	67
L4	Shapes in a pattern	68
L9	True statement of ages	69
M9	Make number sentence true	70
U4	Next number in pattern	71

Item Index 2003



Content Domain	Page	Content Domain	Page		
Patterns and Relationships		Number			
M012048	Symbolic linear equation of magazines	72	M011008	Sum of two numbers with decimals	114
M031220	Rob sold some of his apples	73	M011015	Subtraction with decimals	115
M031249	The value of 37 times box plus 6	74	M011020	Fraction to decimal	116
M011027	Complete number pattern	75	M031348A	Geometry Tiles: 1/2 black	117
M031023	The number to go in the center of the table	76	M031348B	Geometry Tiles: 5/8 black	118
M031051	The daily start times for a movie	77	M012119	Fraction of cake left	119
M031190	Output of the number machine	78	M031065	1/3 of 600 balls in a box	120
Data			M031216	What fraction of cake John ate	121
M012126	Heights of four girls on graph	79	M011001	Which figure has one-half black dots	122
M011009	Bar graph: which shows 45 bottles	80	M011016	3 of 4 squares shaded	123
M011012	Bar graph: which two show 80 bottles	81	M012044	Figure showing fraction of shaded square	124
M012078	Highest temperature on chart	82	M031108	Maria collected soft drink bottles	125
M031264	Colors of students' hair on the graph	83	M011019	Number rounded to 600	126
M031265	How many more pencils than rulers sold	84	M011021	Which number is it	127
M031333	High and low temperatures for a week	85	M011024	Express number in words	128
M031315	The favorite ice creams of 30 students	86	M011028	Which number is equal	129
Geometry			M031305	15 times 9	130
M011014	Congruent figures	87	M031306	204 divided by 4	131
M031267	Shade in two triangles of different sizes	88	M031130	The number Lia should add to 142 to get 369	132
M031327	Draw a line on the grid parallel to line L	89	M031341	1279 plus 243 by mistake	133
M012069	Rotated 3-dimensional figure	90	M011002	Total number of boys and girls	134
M011006	Which has flat and curved surface	91	M011003	Total number of pencils	135
M011022	Statements about triangle	92	M011011	How long to wash windows	136
M031269	Indicates geometric shapes in the picture	93	M012117	Estimate number of cabbages	137
M031347A	Geometry tiles: black triangle	94	M031011	Notebooks for 115 students	138
M031347B	Geometry tiles: black square	95	M031310	A 204 cm rope cut into 4/calculation	139
M031347C	Geometry tiles: fraction shaded	96	M031345A	Number tiles: largest number (+)	140
M031272A	Draw line on rectangle/2 triangles	97	M031345B	Number tiles: largest number (-)	141
M031272B	Draw line on rectangle/2 rectangles	98	M031345C	Number tiles: largest number (X)	142
M031272C	Draw line on rectangle/1 rectangle, 2 triangles	99	M011004	Number represented by squares	143
Measurement			M011007	Which has same value	144
M011023	Weight of an adult	100	M011018	Digit in hundreds place	145
M012023	Units to measure mass of egg	101	M011026	Which is true?	146
M031338	Which could equal 150 milliliters	102	M031162	Number going in the number line box	147
M011005	Which has largest area	103	M031344A	Number tiles: get to 20 using 2,7,9	148
M031008	The length of the films	104	M031344B	Number tiles: get to 20 using 1,3,6	149
M011013	How much did temperature rise	105	M031344C	Number tiles: get to 20 using 1,4,6	150
M031322	Draw a triangle with AB as the base	106			
M012065	Distance on map	107			
M031298	Complete the figure with an area of 13 cm ²	108			
M011017	When is Mary's trip	109			
M011025	Perimeter of rectangle	110			
M031097	Betty's average driving speed	111			
M031178	George practiced soccer 6 days a week	112			
M011010	Volume of stack of cubes	113			